Claims

What is claimed is:

1. A virtual odometer device, comprising:

a speed sensor;

a processor for receiving a speed signal from the speed sensor;

a communication interface connecting the processor to a wireless communication system, the wireless communication system designed to transmit a plurality of the odometer data; and

a monitoring location to receive the odometer data.

2. The virtual odometer device of claim 1, wherein the speed sensor is a global positioning system receiver.

3. The virtual odometer device of claim 1, wherein the processor includes an algorithm to convert the speed signal into the odometer data.

4. The virtual odometer device of claim 1, wherein the monitoring location includes an automated alerting system.

5. A method of operating a virtual odometer system, comprising the steps of:

(a) receiving a speed data from a speed sensor for each of a plurality of known time intervals;

(b) determining an odometer data from the speed data;

(c) transmitting the odometer data over a wireless communication system.

6. The method of claim 5, wherein step (b) includes the steps of:

(b1) multiplying the speed data by a time factor for each of the plurality of known time intervals to form a plurality of distance measurements;

(b2) summing the plurality of distance measurements to form the odometer data.

7. The method of claim 5, wherein step (b) includes the steps of:

(b1) summing the speed data.

8. The method of claim 5, further including:

(d) determining if the odometer data exceeds a predetermined value;

(e) when the odometer data exceeds the predetermined value, activating an automated alerting system.

9. The method of claim 5, wherein step (a) includes the steps of:

(a1) receiving the speed data from a global positioning system receiver.

10. The method of claim 5, wherein step (b) includes the steps of:

(b1) determining if a time interval between a successive speed data is greater than a predetermined maximum time interval;

(b2) when the time interval between the successive speed data is greater than the predetermined maximum time interval, determining a distance between a last known position and a subsequent position.

11. The method of claim 10, wherein step (b) further includes the step of:

(b3) replacing the last known position with the subsequent position.

12. The method of claim 10, wherein step (b) further includes the steps of:

(b3) determining if the time interval between the successive speed data is greater than a predetermined minimum time interval and is not greater than the predetermined maximum time interval;

(b4) when the time interval between the successive speed data is greater than the predetermined minimum time interval and is not greater than the predetermined maximum time interval, averaging a last known position speed data with a subsequent position speed data to produce an average speed data.

13. The method of claim 12, wherein step (b) further includes the steps of:

(b5) multiplying the average speed data by the time interval between the successive speed data.

14. The method of claim 5, wherein step (b) includes the steps of:

(b1) receiving an engine signal;

(b2) determining if a time interval between a successive speed data is greater than a predetermined minimum time interval;

(b3) when the time interval between the successive speed data is greater than the predetermined minimum time interval, averaging a last known speed data with a successive speed data to create an average speed data;

(b4) multiplying the average speed data by the time interval between the last known speed data and the successive speed data to derive the odometer data.

15. The method of claim 14, wherein step (b1) includes the step of:

(i) receiving an engine on signal.

16. The method of claim 14, wherein step (b1) includes the step of:

(i) receiving an engine off signal.

17. A method of operating a virtual odometer system, comprising the steps of:

(a) receiving a plurality of speed data from a global positioning system receiver for each of a plurality of known time intervals; and

(b) when a time interval is not greater than a predetermined minimum time interval, processing a speed data for each of the plurality of known time intervals to create an odometer data.

18. The method of claim 17, wherein step (a) further includes the step of:

(a1) sending the plurality of speed data over a wireless communication system.

19. The method of claim 17, further including:

(c) sending an odometer data over a wireless communication system.

20. The method of claim 17 wherein step (b) further includes the following steps:

(b1) determining if a global positioning system receiver signal is lost;

(b2) when the global positioning system receiver signal is lost, determining when the global positioning system receiver signal is reacquired;

(b3) when the global positioning system receiver signal is reacquired, determining the distance between a last known position and a reacquired position.